

# Adaptation on Rugged Landscapes: Competitive Strategies in the Presence of a Common Objective

## Technical Appendix

In this appendix we provide full documentation of the local adaptation model under the dynamic scheme, while for the interest of length, we provide only partial documentation of the distant adaptation model under the dynamic scheme – only the variables with different equations are shown.

### Local Adaptation Model under the dynamic scheme:

A1 change[Company]=  
IF THEN ELSE(Fitness Difference[Company]>0, -Attribute 1 Current[Company]+Attribute 1 New[Company], 0)/Restructure time  
Units: Dmnl/Month

A10 change[Company]=  
IF THEN ELSE(Fitness Difference[Company]>0, -Attribute 10 Current[Company]+Attribute 10 New[Company], 0)/Restructure time  
Units: Dmnl/Month

A2 change[Company]=  
IF THEN ELSE(Fitness Difference[Company]>0, -Attribute 2 Current[Company]+Attribute 2 New[Company], 0)/Restructure time  
Units: Dmnl/Month

A3 change[Company]=  
IF THEN ELSE(Fitness Difference[Company]>0, -Attribute 3 Current[Company]+Attribute 3 New[Company], 0)/Restructure time  
Units: Dmnl/Month

A4 change[Company]=  
IF THEN ELSE(Fitness Difference[Company]>0, -Attribute 4 Current[Company]+Attribute 4 New[Company], 0)/Restructure time  
Units: Dmnl/Month

A5 change[Company]=  
IF THEN ELSE(Fitness Difference[Company]>0, -Attribute 5 Current[Company]+Attribute 5 New[Company], 0)/Restructure time  
Units: Dmnl/Month

A6 change[Company]=  
IF THEN ELSE(Fitness Difference[Company]>0, -Attribute 6 Current[Company]+Attribute 6 New[Company], 0)/Restructure time  
Units: Dmnl/Month

A7 change[Company]=  
IF THEN ELSE(Fitness Difference[Company]>0, -Attribute 7 Current[Company]+Attribute 7 New[Company], 0)/Restructure time  
Units: Dmnl/Month

A8 change[Company]=  
IF THEN ELSE(Fitness Difference[Company]>0, -Attribute 8 Current[Company]+Attribute 8 New[Company], 0)/Restructure time  
Units: Dmnl/Month

A9 change[Company]=  
IF THEN ELSE(Fitness Difference[Company]>0, -Attribute 9 Current[Company]+Attribute 9 New[Company], 0)/Restructure time  
Units: Dmnl/Month

Attribute 1 Current[Company]= INTEG (A1 change[Company],INTEGER( RANDOM UNIFORM(0.1, 1.9 , Time) ))  
Units: Dmnl

Attribute 1 New[Company]=  
IF THEN ELSE(Change Attribute 1[Company]=1,  
IF THEN ELSE(Attribute 1 Current[Company]=0, 1, 0),  
Attribute 1 Current[Company])  
Units: Dmnl

Attribute 10 Current[Company]= INTEG (A10 change[Company],INTEGER( RANDOM UNIFORM(0.1, 1.9 , Time) ))

Units: Dmnl

```
Attribute 10 New[Company]=  
    IF THEN ELSE(Change Attribute 10[Company]=1,  
    IF THEN ELSE(Attribute 10 Current[Company]=0, 1, 0),  
    Attribute 10 Current[Company])
```

Units: Dmnl

```
Attribute 2 Current[Company]= INTEG (A2 change[Company],INTEGER( RANDOM UNIFORM(0.1, 1.9 , Time) ))
```

Units: Dmnl

```
Attribute 2 New[Company]=  
    IF THEN ELSE(Change Attribute 2[Company]=1,  
    IF THEN ELSE(Attribute 2 Current[Company]=0, 1, 0),  
    Attribute 2 Current[Company])
```

Units: Dmnl

```
Attribute 3 Current[Company]= INTEG (A3 change[Company],INTEGER( RANDOM UNIFORM(0.1, 1.9 , Time) ))
```

Units: Dmnl

```
Attribute 3 New[Company]=  
    IF THEN ELSE(Change Attribute 3[Company]=1,  
    IF THEN ELSE(Attribute 3 Current[Company]=0, 1, 0),  
    Attribute 3 Current[Company])
```

Units: Dmnl

```
Attribute 4 Current[Company]= INTEG (A4 change[Company],INTEGER( RANDOM UNIFORM(0.1, 1.9 , Time) ))
```

Units: Dmnl

```
Attribute 4 New[Company]=  
    IF THEN ELSE(Change Attribute 4[Company]=1,  
    IF THEN ELSE(Attribute 4 Current[Company]=0, 1, 0),  
    Attribute 4 Current[Company])
```

Units: Dmnl

```
Attribute 5 Current[Company]= INTEG (A5 change[Company],INTEGER( RANDOM UNIFORM(0.1, 1.9 , Time) ))
```

Units: Dmnl

```
Attribute 5 New[Company]=  
    IF THEN ELSE(Change Attribute 5[Company]=1,  
    IF THEN ELSE(Attribute 5 Current[Company]=0, 1, 0),  
    Attribute 5 Current[Company])
```

Units: Dmnl

```
Attribute 6 Current[Company]= INTEG (A6 change[Company],INTEGER( RANDOM UNIFORM(0.1, 1.9 , Time) ))
```

Units: Dmnl

```
Attribute 6 New[Company]=  
    IF THEN ELSE(Change Attribute 6[Company]=1,  
    IF THEN ELSE(Attribute 6 Current[Company]=0, 1, 0),  
    Attribute 6 Current[Company])
```

Units: Dmnl

```
Attribute 7 Current[Company]= INTEG (A7 change[Company],INTEGER( RANDOM UNIFORM(0.1, 1.9 , Time) ))
```

Units: Dmnl

```
Attribute 7 New[Company]=  
    IF THEN ELSE(Change Attribute 7[Company]=1,  
    IF THEN ELSE(Attribute 7 Current[Company]=0, 1, 0),  
    Attribute 7 Current[Company])
```

Units: Dmnl

```
Attribute 8 Current[Company]= INTEG (A8 change[Company],INTEGER( RANDOM UNIFORM(0.1, 1.9 , Time) ))
```

Units: Dmnl

```
Attribute 8 New[Company]=  
    IF THEN ELSE(Change Attribute 8[Company]=1,  
    IF THEN ELSE(Attribute 8 Current[Company]=0, 1, 0),  
    Attribute 8 Current[Company])
```

Units: Dmnl

Attribute 9 Current[Company]= INTEG (A9 change[Company],INTEGER( RANDOM UNIFORM(0.1, 1.9 , Time) ))

Units: Dmnl

Attribute 9 New[Company]=  
IF THEN ELSE(Change Attribute 9[Company]=1,  
IF THEN ELSE(Attribute 9 Current[Company]=0, 1, 0),  
Attribute 9 Current[Company])

Units: Dmnl

Average Cummulative Distance=SUM(Average Individual Distance[Company!]) /100

Units: Dmnl

Average Individual Distance[Company]=  
SUM(  
ABS(Attribute 1 Current[Company] - Attribute 1 Current[Company!])  
+ABS(Attribute 2 Current[Company] - Attribute 2 Current[Company!])  
+ABS(Attribute 3 Current[Company] - Attribute 3 Current[Company!])  
+ABS(Attribute 4 Current[Company] - Attribute 4 Current[Company!])  
+ABS(Attribute 5 Current[Company] - Attribute 5 Current[Company!])  
+ABS(Attribute 6 Current[Company] - Attribute 6 Current[Company!])  
+ABS(Attribute 7 Current[Company] - Attribute 7 Current[Company!])  
+ABS(Attribute 8 Current[Company] - Attribute 8 Current[Company!])  
+ABS(Attribute 9 Current[Company] - Attribute 9 Current[Company!])  
+ABS(Attribute 10 Current[Company] - Attribute 10 Current[Company!])  
) /99

Units: Dmnl

Change Attribute 1[Company]=IF THEN ELSE(Random Number Generator for Attribute Selection[Company]<=0.1, 1, 0)

Units: Dmnl

Change Attribute 10[Company]=IF THEN ELSE(Random Number Generator for Attribute Selection[Company]>0.9:AND:  
Random Number Generator for Attribute Selection[Company]<=1, 1, 0)

Units: Dmnl

Change Attribute 2[Company]=IF THEN ELSE(Random Number Generator for Attribute Selection[Company]>0.1:AND:  
Random Number Generator for Attribute Selection[Company]<=0.2, 1, 0)

Units: Dmnl

Change Attribute 3[Company]=IF THEN ELSE(Random Number Generator for Attribute Selection[Company]>0.2:AND:  
Random Number Generator for Attribute Selection[Company]<=0.3, 1, 0)

Units: Dmnl

Change Attribute 4[Company]=IF THEN ELSE(Random Number Generator for Attribute Selection[Company]>0.3:AND:  
Random Number Generator for Attribute Selection[Company]<=0.4, 1, 0)

Units: Dmnl

Change Attribute 5[Company]=IF THEN ELSE(Random Number Generator for Attribute Selection[Company]>0.4:AND:  
Random Number Generator for Attribute Selection[Company]<=0.5, 1, 0)

Units: Dmnl

Change Attribute 6[Company]=IF THEN ELSE(Random Number Generator for Attribute Selection[Company]>0.5:AND:  
Random Number Generator for Attribute Selection[Company]<=0.6, 1, 0)

Units: Dmnl

Change Attribute 7[Company]=IF THEN ELSE(Random Number Generator for Attribute Selection[Company]>0.6:AND:  
Random Number Generator for Attribute Selection[Company]<=0.7, 1, 0)

Units: Dmnl

Change Attribute 8[Company]=IF THEN ELSE(Random Number Generator for Attribute Selection[Company]>0.7:AND:  
Random Number Generator for Attribute Selection[Company]<=0.8, 1, 0)

Units: Dmnl

Change Attribute 9[Company]=IF THEN ELSE(Random Number Generator for Attribute Selection[Company]>0.8:AND:  
Random Number Generator for Attribute Selection[Company]<=0.9, 1, 0)

Units: Dmnl

Company:

Company 1,

Company 2,  
Company 3,  
Company 4,  
Company 5,  
Company 6,  
Company 7,  
Company 8,  
Company 9,  
Company 10,  
Company 11,  
Company 12,  
Company 13,  
Company 14,  
Company 15,  
Company 16,  
Company 17,  
Company 18,  
Company 19,  
Company 20,  
Company 21,  
Company 22,  
Company 23,  
Company 24,  
Company 25,  
Company 26,  
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Company 83,  
Company 84,  
Company 85,  
Company 86,  
Company 87,  
Company 88,  
Company 89,  
Company 90,  
Company 91,  
Company 92,  
Company 93,  
Company 94,  
Company 95,  
Company 96,  
Company 97,  
Company 98,  
Company 99,  
Company 100

Compare All=

100  
+Compare Company 1  
+Compare Company 2  
+Compare Company 3  
+Compare Company 4  
+Compare Company 5  
+Compare Company 6  
+Compare Company 7  
+Compare Company 8  
+Compare Company 9  
+Compare Company 10  
+Compare Company 11  
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+Compare Company 91  
+Compare Company 92  
+Compare Company 93  
+Compare Company 94  
+Compare Company 95  
+Compare Company 96  
+Compare Company 97  
+Compare Company 98  
+Compare Company 99

Units: Dmnl

Compare Company 1=

-IF THEN ELSE(Decimal[Company 1]=Decimal[Company 2] , 1, 0)  
-IF THEN ELSE(Decimal[Company 1]=Decimal[Company 3] , 1, 0)  
-IF THEN ELSE(Decimal[Company 1]=Decimal[Company 4] , 1, 0)  
-IF THEN ELSE(Decimal[Company 1]=Decimal[Company 5] , 1, 0)  
-IF THEN ELSE(Decimal[Company 1]=Decimal[Company 6] , 1, 0)  
-IF THEN ELSE(Decimal[Company 1]=Decimal[Company 7] , 1, 0)















































































































































































































































































































































```

*IF THEN ELSE(Decimal[Company 78]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 79]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 80]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 81]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 82]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 83]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 84]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 85]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 86]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 87]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 88]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 89]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 90]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 91]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 92]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 93]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 94]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 95]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 96]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 97]=Decimal[Company 99], 0, 1)
*IF THEN ELSE(Decimal[Company 98]=Decimal[Company 99], 0, 1)*
-IF THEN ELSE(Decimal[Company 99]=Decimal[Company 100] , 1, 0)
)
Units: Dmnl

Current Fitness[Company]=(
IF THEN ELSE( K=0,
r1*Attribute 1 Current[Company] +
r2*Attribute 2 Current[Company] +
r3*Attribute 3 Current[Company] +
r4*Attribute 4 Current[Company] +
r5*Attribute 5 Current[Company] +
r6*Attribute 6 Current[Company] +
r7*Attribute 7 Current[Company] +
r8*Attribute 8 Current[Company] +
r9*Attribute 9 Current[Company] +
r10*Attribute 10 Current[Company]
,0)

+ IF THEN ELSE( K=1,
ABS( ABS( r1 - Attribute 1 Current[Company] ) - IF THEN ELSE( r11<5, ABS( r2 - Attribute 2 Current[Company] ), 0 ))
+ ABS( ABS( r2 - Attribute 2 Current[Company] ) - IF THEN ELSE( r11<5, ABS( r3 - Attribute 3 Current[Company] ), 0 ))
+ ABS( ABS( r3 - Attribute 3 Current[Company] ) - IF THEN ELSE( r11<5 , ABS( r4 - Attribute 4 Current[Company] ), 0 ))
+ ABS( ABS( r4 - Attribute 4 Current[Company] ) - IF THEN ELSE( r11<5 , ABS( r5 - Attribute 5 Current[Company] ), 0 ))
+ ABS( ABS( r5 - Attribute 5 Current[Company] ) - IF THEN ELSE( r11<5, ABS( r6 - Attribute 6 Current[Company] ), 0 ))
+ ABS( ABS( r6 - Attribute 6 Current[Company] ) - IF THEN ELSE( r11>=5 , ABS( r7 - Attribute 7 Current[Company] ), 0 ))
+ ABS( ABS( r7 - Attribute 7 Current[Company] ) - IF THEN ELSE( r11>=5 , ABS( r8 - Attribute 8 Current[Company] ), 0 ))
+ ABS( ABS( r8 - Attribute 8 Current[Company] ) - IF THEN ELSE( r11>=5 , ABS( r9 - Attribute 9 Current[Company] ), 0 ))
+ ABS( ABS( r9 - Attribute 9 Current[Company] ) - IF THEN ELSE( r11>=5 , ABS( r10 - Attribute 10 Current[Company] ), 0 ))
+ ABS( ABS( r10 - Attribute 10 Current[Company] ) - IF THEN ELSE( r11>=5 , ABS( r1 - Attribute 1 Current[Company] ), 0 ))
,0)

+ IF THEN ELSE( K=5,
ABS( ABS( r1 - Attribute 1 Current[Company] ) - ABS( r2 - Attribute 2 Current[Company] ) )
+ ABS( ABS( r2 - Attribute 2 Current[Company] ) - ABS( r4 - Attribute 4 Current[Company] ) )
+ ABS( ABS( r3 - Attribute 3 Current[Company] ) - ABS( r6 - Attribute 6 Current[Company] ) )
+ ABS( ABS( r4 - Attribute 4 Current[Company] ) - ABS( r8 - Attribute 8 Current[Company] ) )
+ ABS( ABS( r5 - Attribute 5 Current[Company] ) - ABS( r10 - Attribute 10 Current[Company] ) )
+ ABS( ABS( r6 - Attribute 6 Current[Company] ) - ABS( r3 - Attribute 3 Current[Company] ) )
+ ABS( ABS( r7 - Attribute 7 Current[Company] ) - ABS( r5 - Attribute 5 Current[Company] ) )
+ ABS( ABS( r8 - Attribute 8 Current[Company] ) - ABS( r7 - Attribute 7 Current[Company] ) )
+ ABS( ABS( r9 - Attribute 9 Current[Company] ) - ABS( r9 - Attribute 9 Current[Company] ) )
+ ABS( ABS( r10 - Attribute 10 Current[Company] ) - ABS( r1 - Attribute 1 Current[Company] ) )
,0)
) / (
0+SUM(
Difference Table(
ABS(Attribute 1 Current[Company] - Attribute 1 Current[Company!])
+ABS(Attribute 2 Current[Company] - Attribute 2 Current[Company!])
+ABS(Attribute 3 Current[Company] - Attribute 3 Current[Company!])

```

```

+ABS(Attribute 4 Current[Company] - Attribute 4 Current[Company!])
+ABS(Attribute 5 Current[Company] - Attribute 5 Current[Company!])
+ABS(Attribute 6 Current[Company] - Attribute 6 Current[Company!])
+ABS(Attribute 7 Current[Company] - Attribute 7 Current[Company!])
+ABS(Attribute 8 Current[Company] - Attribute 8 Current[Company!])
+ABS(Attribute 9 Current[Company] - Attribute 9 Current[Company!])
+ABS(Attribute 10 Current[Company] - Attribute 10 Current[Company!])
))
Units: Dmnl

```

```

Decimal[Company]=
(Attribute 1 Current[Company]*(2^10))
+(Attribute 2 Current[Company]*(2^9))
+(Attribute 3 Current[Company]*(2^8))
+(Attribute 4 Current[Company]*(2^7))
+(Attribute 5 Current[Company]*(2^6))
+(Attribute 6 Current[Company]*(2^5))
+(Attribute 7 Current[Company]*(2^4))
+(Attribute 8 Current[Company]*(2^3))
+(Attribute 9 Current[Company]*(2^2))
+(Attribute 10 Current[Company]*(2^1))
Units: Dmnl

```

```

Difference Table([(0,0)-(10,1),(0,1),(1,0.9),(2,0.8),(3,0.7),(4,0.6),(5,0.5),(6,0.4),(7,0.3),(8,0.2),(9,0.1),(10,0)])
Units: Dmnl

```

```

FINAL TIME = 100
Units: Month

```

```

Fitness Difference[Company]=New Structure Fitness[Company]-Current Fitness[Company]
Units: Dmnl

```

```

INITIAL TIME = 0
Units: Month

```

```

K=5
Units: Dmnl

```

```

New Structure Fitness[Company]=
(
IF THEN ELSE( K=0,
r1*Attribute 1 New[Company] +
r2*Attribute 2 New[Company] +
r3*Attribute 3 New[Company] +
r4*Attribute 4 New[Company] +
r5*Attribute 5 New[Company] +
r6*Attribute 6 New[Company] +
r7*Attribute 7 New[Company] +
r8*Attribute 8 New[Company] +
r9*Attribute 9 New[Company] +
r10*Attribute 10 New[Company]
,0)

+ IF THEN ELSE( K=1,
ABS( ABS( r1 - Attribute 1 New[Company] ) - IF THEN ELSE( r11<5, ABS( r2 - Attribute 2 New[Company] ), 0 ) )
+ ABS( ABS( r2 - Attribute 2 New[Company] ) - IF THEN ELSE( r11<5, ABS( r3 - Attribute 3 New[Company] ), 0 ) )
+ ABS( ABS( r3 - Attribute 3 New[Company] ) - IF THEN ELSE( r11<5, ABS( r4 - Attribute 4 New[Company] ), 0 ) )
+ ABS( ABS( r4 - Attribute 4 New[Company] ) - IF THEN ELSE( r11<5 :AND: r11<6, ABS( r5 - Attribute 5 New[Company] ), 0 ) )
+ ABS( ABS( r5 - Attribute 5 New[Company] ) - IF THEN ELSE( r11<5 :AND: r11<6, ABS( r6 - Attribute 6 New[Company] ), 0 ) )
+ ABS( ABS( r6 - Attribute 6 New[Company] ) - IF THEN ELSE( r11>=5, ABS( r7 - Attribute 7 New[Company] ), 0 ) )
+ ABS( ABS( r7 - Attribute 7 New[Company] ) - IF THEN ELSE( r11>=5, ABS( r8 - Attribute 8 New[Company] ), 0 ) )
+ ABS( ABS( r8 - Attribute 8 New[Company] ) - IF THEN ELSE( r11>=5, ABS( r9 - Attribute 9 New[Company] ), 0 ) )
+ ABS( ABS( r9 - Attribute 9 New[Company] ) - IF THEN ELSE( r11>=5, ABS( r10 - Attribute 10 New[Company] ), 0 ) )
+ ABS( ABS( r10 - Attribute 10 New[Company] ) - IF THEN ELSE( r11>=5, ABS( r1 - Attribute 1 New[Company] ), 0 ) )
,0)

+ IF THEN ELSE( K=5,
ABS( ABS( r1 - Attribute 1 New[Company] ) - ABS( r2 - Attribute 2 New[Company] ) )
+ ABS( ABS( r2 - Attribute 2 New[Company] ) - ABS( r4 - Attribute 4 New[Company] ) )
+ ABS( ABS( r3 - Attribute 3 New[Company] ) - ABS( r6 - Attribute 6 New[Company] ) )
+ ABS( ABS( r4 - Attribute 4 New[Company] ) - ABS( r8 - Attribute 8 New[Company] ) )
)

```

```

+ ABS( ABS( r5 - Attribute 5 New[Company] ) - ABS( r10 - Attribute 10 New[Company] ) )
+ ABS( ABS( r6 - Attribute 6 New[Company] ) - ABS( r3 - Attribute 3 New[Company] ) )
+ ABS( ABS( r7 - Attribute 7 New[Company] ) - ABS( r5 - Attribute 5 New[Company] ) )
+ ABS( ABS( r8 - Attribute 8 New[Company] ) - ABS( r7 - Attribute 7 New[Company] ) )
+ ABS( ABS( r9 - Attribute 9 New[Company] ) - ABS( r9 - Attribute 9 New[Company] ) )
+ ABS( ABS( r10 - Attribute 10 New[Company] ) - ABS( r1 - Attribute 1 New[Company] ) )
) / (

```

```

1+SUM(
Difference Table(
ABS(Attribute 1 New[Company] - Attribute 1 Current[Company!])
+ABS(Attribute 2 New[Company] - Attribute 2 Current[Company!])
+ABS(Attribute 3 New[Company] - Attribute 3 Current[Company!])
+ABS(Attribute 4 New[Company] - Attribute 4 Current[Company!])
+ABS(Attribute 5 New[Company] - Attribute 5 Current[Company!])
+ABS(Attribute 6 New[Company] - Attribute 6 Current[Company!])
+ABS(Attribute 7 New[Company] - Attribute 7 Current[Company!])
+ABS(Attribute 8 New[Company] - Attribute 8 Current[Company!])
+ABS(Attribute 9 New[Company] - Attribute 9 Current[Company!])
+ABS(Attribute 10 New[Company] - Attribute 10 Current[Company!])
) )
Units: Dmnl

```

```

r1=RANDOM 0 1 ()
Units: Dmnl

```

```

r10= RANDOM 0 1 ()
Units: Dmnl

```

```

r11= INTEGER(10*RANDOM 0 1())
Units: Dmnl

```

```

r2= RANDOM 0 1 ()
Units: Dmnl

```

```

r3= RANDOM 0 1 ()
Units: Dmnl

```

```

r4= RANDOM 0 1 ()
Units: Dmnl

```

```

r5= RANDOM 0 1 ()
Units: Dmnl

```

```

r6= RANDOM 0 1 ()
Units: Dmnl

```

```

r7= RANDOM 0 1 ()
Units: Dmnl

```

```

r8= RANDOM 0 1 ()
Units: Dmnl

```

```

r9= RANDOM 0 1 ()
Units: Dmnl

```

```

Random Number Generator for Attribute Selection[Company]=RANDOM 0 1()
Units: Dmnl

```

```

Restructure time=1
Units: Month

```

```

SAVEPER = TIME STEP
Units: Month [0,?]

```

## **Distant Adaptation Model under the dynamic scheme:**

Attribute 1 New[Company]=INTEGER(RANDOM UNIFORM(0.01, 1.99, 1234))  
Units: Dmnl

Attribute 2 New[Company]=INTEGER(RANDOM UNIFORM(0.01, 1.99, 1234))  
Units: Dmnl

Attribute 3 New[Company]=INTEGER(RANDOM UNIFORM(0.01, 1.99, 1234))  
Units: Dmnl

Attribute 4 New[Company]=INTEGER(RANDOM UNIFORM(0.01, 1.99, 1234))  
Units: Dmnl

Attribute 5 New[Company]=INTEGER(RANDOM UNIFORM(0.01, 1.99, 1234))  
Units: Dmnl

Attribute 6 New[Company]=INTEGER(RANDOM UNIFORM(0.01, 1.99, 1234))  
Units: Dmnl

Attribute 7 New[Company]=INTEGER(RANDOM UNIFORM(0.01, 1.99, 1234))  
Units: Dmnl

Attribute 8 New[Company]=INTEGER(RANDOM UNIFORM(0.01, 1.99, 1234))  
Units: Dmnl

Attribute 9 New[Company]=INTEGER(RANDOM UNIFORM(0.01, 1.99, 1234))  
Units: Dmnl

Attribute 10 New[Company]=INTEGER(RANDOM UNIFORM(0.01, 1.99, 1234))  
Units: Dmnl